

## ProScale Model 290: Inductive Technology Encoder system

Systems with Part Numbers **901-29LL-DRO-CAB**,  
 Where **LL** is measuring length, **DRO** is the digital  
 readout choice, and **CAB** is the length of the  
 encoder's cable.

# TECHNICAL DATA SHEET

### GENERAL INFORMATION

- Model 290 is a linear encoder with a fixed gap between encoder and scale. No moving gears or rollers to wear out, and no alignment is needed to set the encoder-to-scale gap.
- Output resolution is 0.01mm
- Accuracy is not affected by alignment of installation.
- Easy installation onto nearly any machine or measuring system.
- Model 290 is not affected by magnets, minor static electricity, or most motor transients.
- System might lose position if power is lost for 4+ minutes.\*
- 3-year warranty.
- Made in USA.



### MECHANICAL:

- Anodized aluminum scale has a countersunk holes for M4 (or 8-32) screws.
- The sensor gap is set at the factory and never needs adjustment.
- Cable lengths from 4 inches to 360 inches.
- A Guide Clip is provided to connect motion of the encoder to moving part on your machine. The guide clip compensates for minor yaw, pitch, roll issues.
- Excellent vibration resistance.
- Operating temperature range: 30-120 F
- Digital scale is 4.0 inches longer than measuring range.

### ELECTRICAL:

- Six conductor cable from the encoder is shielded.
- Cable is very flexible.
- Cable has strain reliefs at both ends.
- This system can be used with battery powered readouts or with externally powered readouts.
- Inductive technology is not affected by magnets, debris, grease, or most fluids.
- Slew rates up to 120 inches/second.
- Output signal is Digimatic, same as most digital calipers used worldwide.

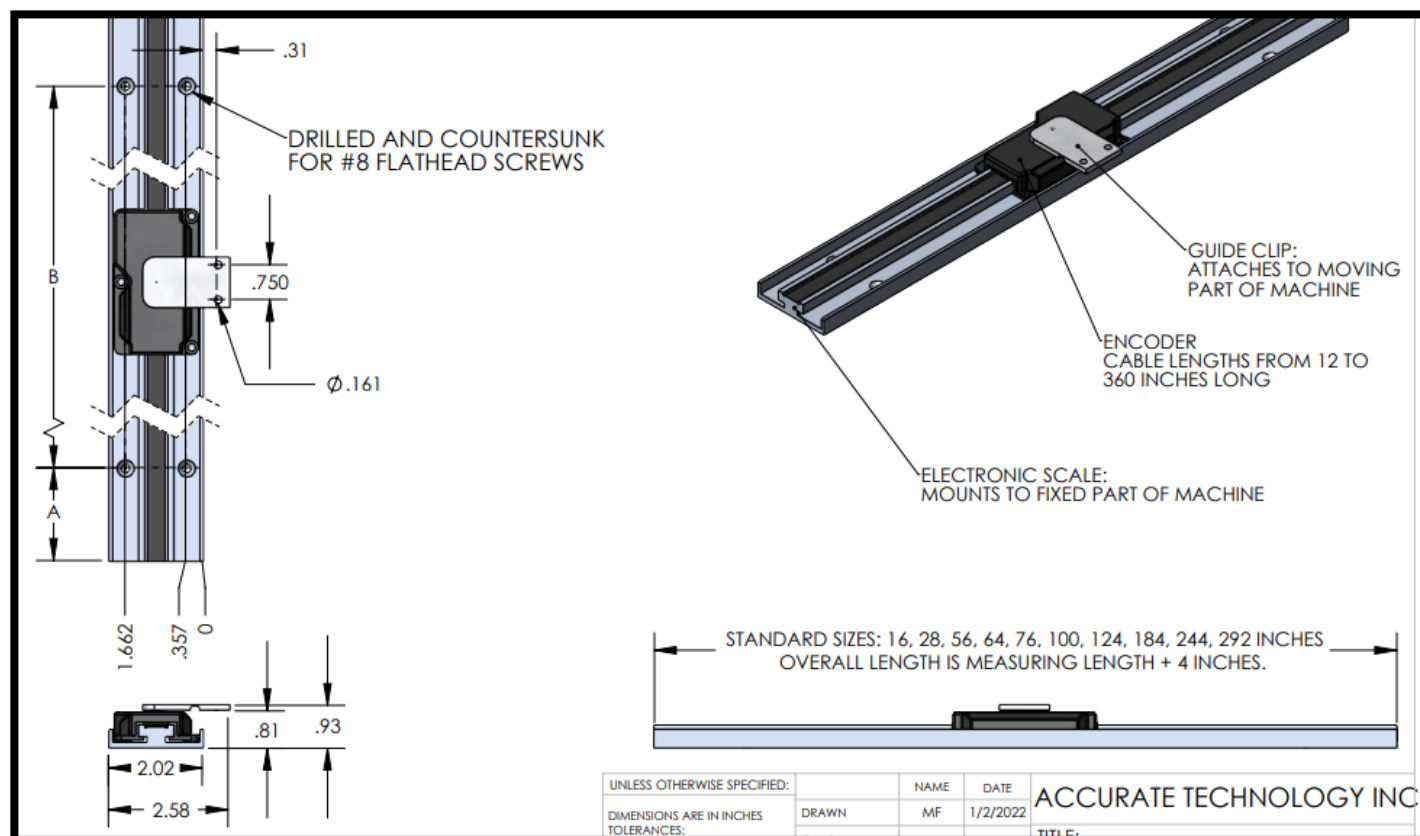
**\*Applies to systems with 701-1940 type encoders, made July 2023 to current. All our battery-powered digital readouts provide power to the encoder (even when the screen is turned off). Externally powered readouts can use the Encoder Power Pack. These setups ensure no loss of position even if mains power is lost for months.**

## ABOUT ACCURACY:

The accuracy of Model 290 is  $\pm .002''$  per foot, not to exceed  $\pm .008''$  overall, when installed correctly. Temperature can affect accuracy, and should be considered with very long measuring ranges, or if large temperature variation is expected.

Accuracy can be further improved after installation by employing linear, non-linear, and/or temperature compensation (features available on select ProScale readouts).

## DIMENSIONS:



3D CAD (STEP and IGS) files are available at [www.proscale.com](http://www.proscale.com) or by email on request.

## INSTALLATION TOLERANCES (with Guide Clip):

- Roll:  $\pm 4$  degrees
- Pitch:  $\pm 3$  degrees
- Yaw:  $\pm 4$  degrees

## HOW TO ORDER:

1. Determine measuring range required. Find the next larger stock size (see below).
2. Determine how long a cable is needed.
3. Determine which ProScale readout is needed.

## WHERE TO ORDER:

- From factory by calling 1-828-654-7920
- From website: [www.proscale.com](http://www.proscale.com)
- From distributors – see list at [www.proscale.com/where-to-buy](http://www.proscale.com/where-to-buy)